	Work Instruction for Processing Research Deliverables	**IVV 09-3-5** **Revision: B** **Effective Date:** **June 08, 2005**
NASA **Independent Verification & Validation Facility**		

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APPROVAL SIGNATURES		DATE
Gregory Blaney (original signature on file)	Management System Representative	06/02/2005

REVISION HISTORY			
Rev. No.	Description of Change	Author	Effective Date
Basic	Initial Release	Frank Gmeindl	09/10/2003
A	Updated reference documents to include relevant standards. Evaluated and updated the metrics collected as a result of this process.	Wes Deadrick	11/03/2004
B	Clarify sections 5.4 and 6.5	Frank Gmeindl	06/08/2005

REFERENCE DOCUMENTS	
Document Number	Document Title
IVV 09-3	Research Program
IVV 09-3-7	Work Instruction for Publication/Presentation of Research Results
IVV 16	Control of Quality Records System Level Procedure
NASA STD 8739.8	Standard for Software Assurance
NPR 1441.1	NASA Records Retention Schedules
NPR 5100.4B	Federal Acquisition Regulation Supplement
NPR 5800.1E	Grants and Cooperative Agreement Handbook

1.0 Purpose

The purpose of this Work Instruction (WI) is to establish a consistent method for processing research deliverables that are delivered to the NASA IV&V Facility through the Center Initiative Management (CIM) Tool. This WI is one of a set of WIs for implementing System Level Procedure (SLP) IVV 09-3, Research Program. This WI complies with NASA Procedural Requirements (NPR) 5100.4B, Federal Acquisition Regulation (FAR) Supplement (NASA/FAR Supplement), and NPR 5800.1E, Grants and Cooperative Agreement Handbook.

2.0 Scope

This WI is applicable to all research initiative deliverables. This WI is applicable to all research initiative principal investigators (PIs), research initiative Government Points of Contact (POCs), the Facility Research Lead, the Facility Research Support Contractor, and other Facility personnel involved with the research program.

3.0 Definitions and Acronyms

3.1 Acronyms

CI	Center Initiative
CIM	Center Initiative Management
COTR	Contracting Officer's Technical Representative
FAR	Federal Acquisition Regulation
FI	Facility Initiative
NPR	NASA Procedural Requirements
PI	Principal Investigator
POC	Point of Contact
SARP	Software Assurance Research Program
SLP	System Level Procedure
STD	Standard
UI	University Initiative
WI	Work Instruction

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4.0 Flow Chart

Figure 4-1 depicts the deliverable processing process. The steps in this process are described in Section 6, Process, of this WI. The step numbers in Figure 4-1 correspond with the step numbers in Section 6, Process, of this WI.
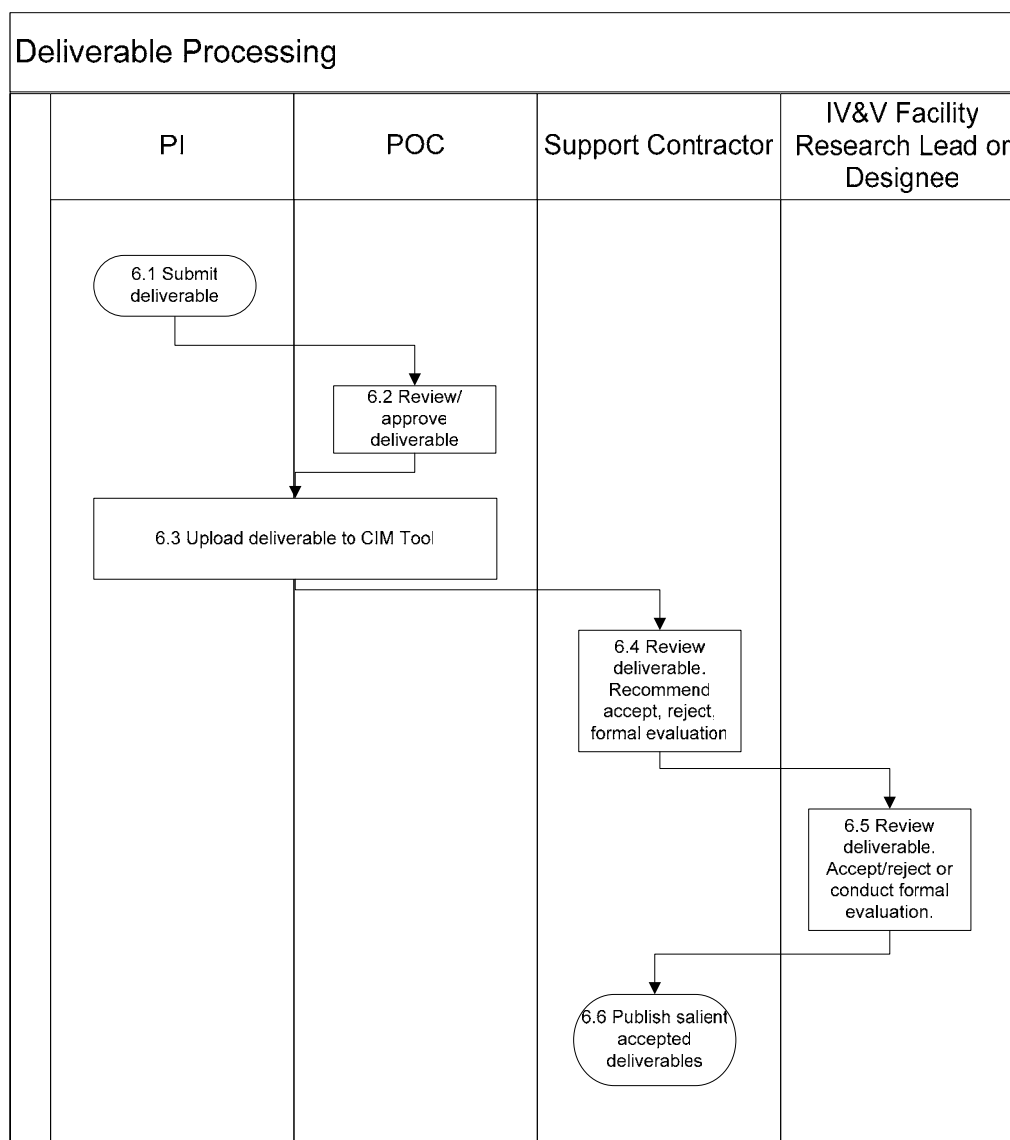

Figure 4-1: Deliverable Processing - Overview

5.0   Responsibilities

5.1   Facility Research Lead or Designee

The Facility Research Lead or Designee shall:

- Review all initiative deliverables.
- Accept or reject deliverables, or direct that a formal evaluation be conducted.

5.2   Support Contractor Program Manager

The Support Contractor Program Manager shall:

- Perform cursory reviews of deliverables within twenty four hours of receipt to ensure that deliverables do not contain NASA software development project data that the project did not authorize for release, meet the objectives of the proposed research and meet the typical quality standards for readability, communication of information, and suitability for the expected audience.
- Provide review recommendations to the Facility Research Lead or Designee.
- Conduct or arrange formal deliverable evaluations as required by Facility Research Lead or Designee.
- Ensure that deliverables to be published are cleared for public release as defined in WI 09-3-7, Work Instruction for the Publication/Presentation of Research Results.
- Publish salient research results on the Software Assurance Research Program (SARP) Results web site (http://sarpresults.ivv.nasa.gov/).

5.3   Center Initiative Management (CIM) Tool

The CIM Tool shall:

- Display deliverables, due dates, and statuses to authorized users.
- Provide guidance to PIs and Government POCs for uploading deliverables.

- Accept deliverables that PIs or Government POCs upload.
- Put deliverables for review in appropriate user queues.
- Record Support Contractor's recommendations and comments.
- Record Facility Research Lead's or Designee's comments and decisions.
- Notify appropriate users of deliverable status.

5.4   CIM Tool Manager

The CIM Tool Manager shall:

- Maintain deliverable status data in the CIM Tool.
- Conduct cursory evaluations of deliverables.
- Conduct formal evaluations of deliverables as required.

5.5   Government Point Of Contact

The Government POC shall:

- Review deliverables to ensure that they meet the requirements of the contract and that their technical content is satisfactory.
- Submit deliverables to the Facility through the CIM Tool or authorize the PI to submit them.
- Process appropriate public release authorization forms.

5.6   Principal Investigators

The PIs shall:

- Submit acceptable deliverables on time.
- Complete required public release authorization forms.

6.0   Procedure

The following procedure describes the steps shown in Figure 4-1.

6.1   PI Submits Deliverable to Government POC

The PI submits the deliverable to the Government POC, usually by e-mail.

6.2 Government POC Reviews and Approves Deliverable

The Government POC:

- Reviews and approves the deliverable, or negotiates revision with the PI.
- Ensures that the PI completed appropriate public release authorization (NASA Form 1676 for documents, NASA Form 1679 for software and other intellectual property that the PI wishes to protect (i.e., obtain a patent). See the "Export Control" section of the PI Guide in the CIM Tool, and WI 9-3-7, Work Instruction for the Publication/Presentation of Research Results, for publishing research results.
- Decides whether the POC or the PI will upload the approved deliverable to the CIM Tool.

6.3 PI or Government POC Uploads Deliverable to the CIM Tool

The PI or Government POC shall:

- Log on to the CIM Tool.
- Click on "2003 (or appropriate year) Initiatives" in the navigation menu.
- Click on the name of the initiative for which a deliverable will be submitted.
- Click on the name of the deliverable to be submitted,
- Click the "Submit Deliverable" button at the bottom of the deliverable window and follow the directions. The CIM Tool will allow upload of the deliverable from local hard disk (if the deliverable is too large or not electronic, place a comment describing the alternative avenue by which the product will be delivered). The PI or Government POC must ensure that the email addresses of the PI and the Government POC are entered in the appropriate fields before clicking the "Complete Submission" button so that the PI and the POC will be notified when the deliverable is accepted.

6.4   Support Contractor Program Manager Reviews Deliverables and Recommends Accept, Reject, or Formal Evaluation

Once the deliverable is uploaded to the CIM Tool, the CIM Tool notifies the Support Contractor that a deliverable is awaiting contractor action, and the CIM Tool puts the deliverable into the Support Contractor's queue. The Support Contractor CIM Tool Manager changes the deliverable status from "due" to "submitted." The Support Contractor Program Manager then reviews the deliverable and provides recommendations to the Facility Research Lead via the CIM Tool. Then, the CIM Tool puts the deliverable with the Support Contractor's recommendation and comments into the Facility Research Lead's queue and notifies him or her that the deliverable is awaiting Government action.

6.5   Facility Research Lead or Designee Reviews Deliverables and Accepts/Rejects or Conducts Formal Evaluation

The Facility Research Lead reviews the deliverables in the queue and decides whether to accept them, reject them, or conduct a formal evaluation. The Facility Research Lead may also add explanatory remarks to his or her decision. When the Facility Research Lead submits his or her decision, the CIM Tool opens a form to send an e-mail to the PI, the Government POC, and the Facility Contracting Officer's Technical Representative (COTR) (if applicable), that notifies them of the disposition of the deliverable.

If the Facility Research Lead decides to conduct a formal evaluation of the deliverable, he or she may conduct the formal evaluation or delegate it to the Support Contractor. If the Facility Research Lead delegates it to the Support Contractor, the Support Contractor can conduct the formal evaluation or subcontract the formal evaluation to one of its Government-approved subcontractors. When the formal evaluation is complete, the Support Contractor uploads the formal evaluation report to the CIM Tool. The CIM Tool notifies the Facility Research Lead that the formal evaluation is complete and that the deliverable is awaiting the Facility Research Lead's final accept/reject decision. The Facility Research Lead reviews the formal evaluation report and decides whether to accept or reject the deliverable. When the Facility Research Lead submits his or her decision, the CIM Tool opens a form to send an e-mail to the PI, the

Government POC, and the Facility COTR (if applicable) that notifies the them of the disposition of the deliverable.

6.6   Support Contractor Publishes Salient Accepted Deliverables

The Support Contractor publishes accepted document deliverables or accepted software deliverables that will have a significant impact on the state of the practice of software assurance. The Support Contractor publishes the deliverables on the SARP Results repository (http://sarpresults.ivv.nasa.gov/). Before publishing the results, the Support Contractor ensures that the deliverable is cleared for public release by either the NASA Form 1676 or the NASA Form 1679 as appropriate. See WI 9-3-7, Work Instruction for the Publication/Presentation of Research Results, for instructions for publishing deliverables.

7.0   7.0   Metrics

The Facility uses the CIM Tool to track the planned vs. actual number of deliverables submitted. For deliverables, the CIM Tool tracks due date, submittal date, review dates, and accept/reject/further evaluation decisions.

Each metric is to be tracked for trend analysis to understand where resources are being applied and with what results. The intent is to improve existing processes and continually revisit research focus strategies.

8.0   Records

The following records, as shown in Table 8-1, are generated and managed in accordance with IVV 16, Control of Quality Records, and in reference to NPR 1441.1, NASA Records Retention Schedules.

Document Name and Identification Number	User Responsible for Record Retention	Retention Requirement	Location
Delivered CI/UI/FI Deliverables	Research Lead	Permanent	CIM Tool

Table 8-1: Records Generated and Managed